

Claims

1. A non-aerosol spray-on skin patch composition comprising:

5 a) at least one substantially water insoluble film forming agent;

 b) at least one film plasticiser agent;

 c) at least one water soluble compound; and

 d) at least one organic solvent;

the composition forming a flexible, porous and physiologically compatible skin patch when sprayed onto skin and allowed to dry.

Spec 1 10
Spec 2
Spec 3

The composition according to claim 1 wherein the at least one water soluble compound comprises at least one physiologically active ingredient.

15 3. The composition according to claim 2 wherein the at least one physiologically active ingredient is an antimicrobial agent and/or an antifungal agent.

Spec 4 14
Spec 5
Spec 6

The composition according to either claim 3 wherein the antimicrobial agent is a quaternary ammonium compound.

20 5. The composition according to claim 4 wherein the quaternary ammonium compound is selected from cetrimide, alkylaryltralkylammonium chloride, alkylaryltrimethylammonium chloride, amantanium bromide, benzalkonium chloride, benzethonium chloride, benzododeconium bromide, cetalkonium chloride, cethexonium bromide, cetrimonium bromine, and cetyltrimethylethylammonium bromide.

25 6. The composition according to claim 5 wherein the quaternary ammonium compound is cetrimide.

30 7. The composition according to claim 3 which comprises a water soluble antimicrobial agent and a water soluble antifungal agent.

35 8. The compound according to any one of claims 7 wherein the antimicrobial agent is a quaternary ammonium compound and the antifungal agent is selected from chlorbutanol, phenol, phenol derivatives, salicylic acids, arisoran, amorolfine, amphotericin, azole derivatives and related compounds, benzoyl disulphide,

Spec 7 34

bromochlorosalicylanilide, bucllosamide, butenafine, candicidicaprlyic acid, chlorphenesin, ciclopirox olamine, cilofungin, fenticlor, flucytosine, criseofulvin, hachimycin, haloprogin, hamycin, hydroxystilbamidine isethionate, loflucarban, meparticin, natamycin, nifuroxime, p-nitrophenol, nystatin, pentamycin, propionic acid, protiofate, pyrrolnitrin, sultentine, terbinafine, tolaciclate, tolnaftate, triacetin, and undecenoic acid.

5

9. The compound according to claim 8 wherein the antifungal agent is chlorbutanol.

10. The composition according to claim 1 which additionally comprises at least one physiologically active ingredient.

15

11. The composition according to claim 10 wherein the at least one physiologically active ingredient is selected from an antifungal, an antimicrobial, an antiseptic, an antiparasitic, a nicotine, a cortico steroid, a pain relieving agent, a cardiac dilater, a cardiac stimulant, an antihistamine, an anti-inflammatory, an anti blood clotting agent, a growth hormone, a sex hormone, or drugs commonly used for diseases in the alimentary system, central nervous system, musculoskeletal system, genitourinary system allergy and immune system, respiratory system, or a biologically active peptide or protein.

20

25

12. The composition according to claim 11 wherein the at least one physiologically active ingredient is triclosane.

30

13. The composition according to claim 1 wherein the film forming agent is selected from polymethacrylic acid, polybutyl methacrylate and polyacrylic acid.

14. The composition according to claim 1 wherein the film plasticiser agent is polybutylphthalate.

35

15. The composition according to claim 1 wherein the organic solvent is selected from isopropanol, acetone and ethylacetate.

16. A spray patch skin delivery composition providing:

(a) at least one substantially water insoluble film forming agent;

(b) at least one film plasticiser agent;

(c) at least one water soluble compound;
(d) at least one organic solvent; and
(e) one or more physiologically active ingredients or a prodrug thereof;
the composition forming a flexible, porous and physiologically compatible skin patch
5 when sprayed onto skin and allowed to dry, and which breaks down or disintegrates
when sprayed onto skin, and which provides transdermal drug delivery.

17. The composition according to claim 16 wherein the physiologically active ingredient
or a further physiologically active ingredient is selected from an antifungal, an
10 antibacterial, an antiparasitic, a nicotine, a cortico steroid, a pain relieving agent, a
cardiac dilater, a cardiac stimulant, an antihistamine, an antiinflammatory, an anti
blood clotting agent, a growth hormone, a sex hormone, or drugs commonly used for
the diseases in the alimentary system, central nervous system, musculoskeletal system,
15 genitourinary system, allergy and immune system, respiratory system, or a biologically
active peptide or protein.

18. A non-aerosol spray-on skin patch composition comprising:
0.01% to 10% w/w of at one or more water insoluble compounds
0.01% to 10% w/w of one or more physiologically active ingredient/s
20 1% to 50% w/w of polymethacrylic acid
0.1% to 20% w/w of polybutylphthalate
0% to 90% w/w of isopropanol
0% to 90% w/w of acetone
ethylacetate up to 100% w/w,
25 the composition forming a flexible, porous and physiologically compatible skin patch
when sprayed onto skin and allowed to dry.

19. The composition according to claim 18 comprising:
0.05% w/w of centrimide
0.07% w/w of triclosane
0.6% w/w of chlorbutanol
10% w/w of polymethacrylic acid
1.2% w/w of polybutylphthalate
4% w/w of isopropanol
30 24% w/w acetone
ethylacetate up to 100% w/w.

Selby
30

35

20. A method of improving wound healing or administering a physiologically active ingredient to a patient in need of such treatment comprising applying to a wound or to skin of the patient an effective amount of a composition according to claim 1 or claim 5 16.
21. A method for the treatment of skin wounds, fungal infections, eczema, bacterial infections in or on the skin and/or associated with skin wounds, athlete's foot, skin 10 ulceration, burns, scalds, insect bites, allergic skin diseases, psoriasis, itching and pain, which comprises administering to the skin a composition according to claim 1 or 16.

John B1